

Figure 1

ADA	Application Development Architecture
ETA	Enterprise Technology Architecture
HIPPA	Health Insurance Patient Privacy Act
FDA	Food and Drug Administration
B2B	Business-to-Business
B2C	Business-to-Consumer
CMS -	Content Management System
PIN	Personal Identification Number (works like a password)
DRS	Device Registration System (Oracle® instance)
JSP	Java Server Page
LDAP	Lightweight Directory Access Protocol (via Oblix® policy server)
SSL	Secure Socket Layer (Browser data communications encryption)
VPN	Virtual Private Network (IP-Secure implementation, B2B data encryption)
XML	eXtensible Markup Language (for machine readable documents and B2B communications)
TSS	Therapy Support Services, or TSS for short
SAIT	Server Administrator Information Technology
SRS	System Requirements Specification
DD	Design Detail Document
SVP	System/Software Validation Plan
VT	Short for Verification Test checklist
SVR	System/Software Validation Report

Figure 2

Welcome! Please fill out the following form to register. Fields marked with a * are required.

*User ID	<input type="text" value="hphdd1"/>	*Confirm	<input type="text" value="hphdd1"/>
Your password must be at least 7 characters in length, and must contain at least 2 numeric characters.			
*First Name		Street Address	
<input type="text" value="Doc"/>		<input type="text" value="9875 Birch Blvd"/>	
Preferred Name		City	
<input type="text" value=""/>		<input type="text" value="St. Paul"/>	
Middle Name		*State	
<input type="text" value=""/>		<input type="text" value="MN"/>	
*Last Name		Zip	
<input type="text" value="Holladay"/>		<input type="text" value="55122"/>	
Name Suffix		Phone Number	
<input type="text" value="MD"/>		<input type="text" value="612-458-1234"/>	
*E-Mail Address		Fax	
<input type="text" value="holladay@open.com"/>		<input type="text" value=""/>	

*Are you a Physician?

☒ Yes ☐ No

*Do you want to receive informational e-mails?

☒ Yes ☐ No

Connection Type	<input type="text" value="DSL or Cable Modem"/>	Location	<input type="text" value="Clinic"/>
Computer Type	<input type="text" value="Windows-based PC"/>	Number of Computers	<input type="text" value="2"/>

I understand that my User ID and password are for my use only and I agree that I will not share my login information with anyone, nor log in using another's User ID.

Figure 3

Contact Medtronic

Email Us!

Please fill out the form below to receive more information about the Therapy Support Services

Fields marked with * are required

*First Name
*Last Name
*E-Mail Address
Street Address
City
*State
Zip
*Phone Number
Fax
*Message
Issue

Fields marked with * are required

FIG 4

Please fill out the following form to complete registration. Fields marked with a * are required.

* Social Security No	999-99-9999	* Home Phone	612-459-7362
* UPIN	U82136413	* Office Phone	612-459-2721
* DEA Number		* Hospital Phone	612-459-2720
* DEA Expiration		Payer	
* State License No		Cellphone	
* State License Expiration			
* Profession	Physician		
Specialty	Neuro Surgery		
<input type="button" value="Submit"/> <input type="button" value="Clear / Start Over"/>			

FIG 5

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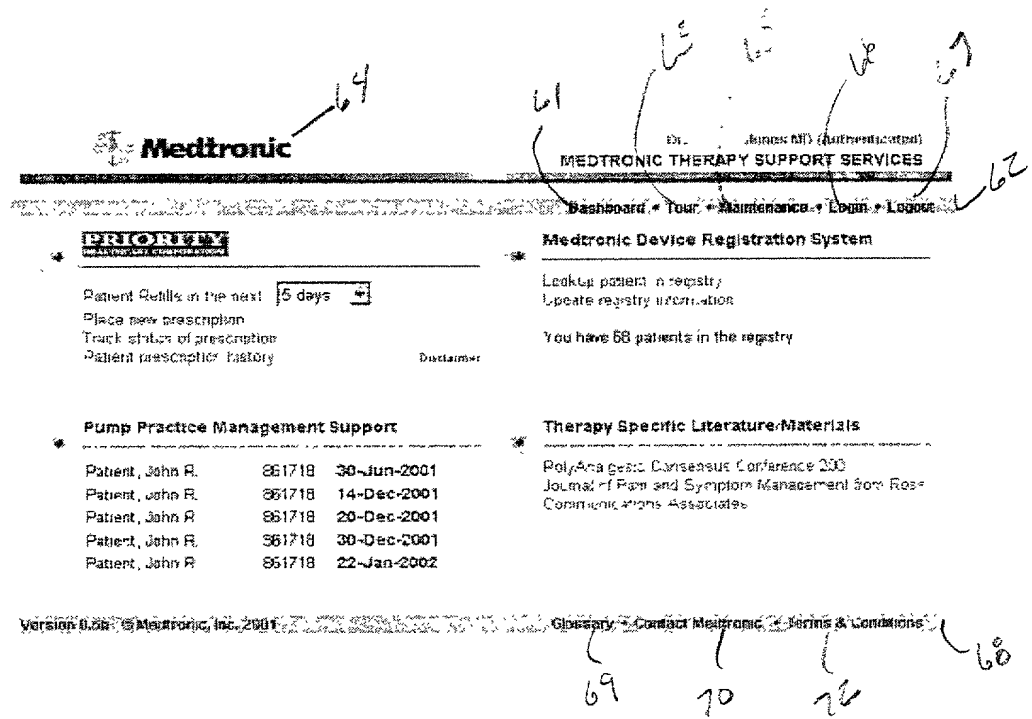


FIG 6

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Dr. J. Jones (10) (Anthony, 0000)
MEDTRONIC THERAPY SUPPORT SERVICES

Dashboard • Tools • Maintenance • Login • Logout

Medtronic Pump Replacement Report

Report Interpretation

Patient Name	Model	Implant Date	-3 SD	Likely Date	+3 SD
Patient, John R.	861718	12/31/1996	Calculate	30-Dec-1999	30-Jun-2001
Patient, John R.	861718	06/14/1997	Calculate	14-Jun-2000	14-Dec-2001
Patient, John R.	861718	06/20/1997	Calculate	20-Jun-2000	20-Dec-2001
Patient, John R.	861718	06/30/1997	Calculate	30-Jun-2000	30-Dec-2001
Patient, John R.	861718	07/22/1997	Calculate	22-Jul-2000	22-Jan-2002
Patient, John R.	861718	07/25/1997	Calculate	25-Jul-2000	25-Jan-2002
Patient, John R.	861718	09/19/1997	Calculate	19-Aug-2000	19-Feb-2002
Patient, John R.	861718	09/19/1997	Calculate	19-Sep-2000	19-Mar-2002
Patient, John R.	861718	11/03/1997	Calculate	03-Nov-2000	03-May-2002
Patient, John R.	861718	12/11/1997	Calculate	11-Dec-2000	11-Jun-2002
Patient, John R.	861718	03/06/1998	Calculate	06-Mar-2001	06-Sep-2002
Patient, John R.	861718	03/18/1998	Calculate	18-Mar-2001	18-Sep-2002

FIG 7

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MEDTRONIC THERAPY SUPPORT SERVICES™



Patient: Pain, Irma N.

Pump Model: 861718

Implant Date: 08/05/1998

**Avg. Daily
Infusion Volume:** mL

Calculate

-3 SD: 05-Nov-2001

Mean Date: 05-Mar-2002 [43.6 Months]

+3 SD: 05-Mar-2002

Important: This calculation assumes constant daily infusion volume over the life of the pump. To improve your calculation, enter your best estimate of the programmed average daily infusion volume since implant.

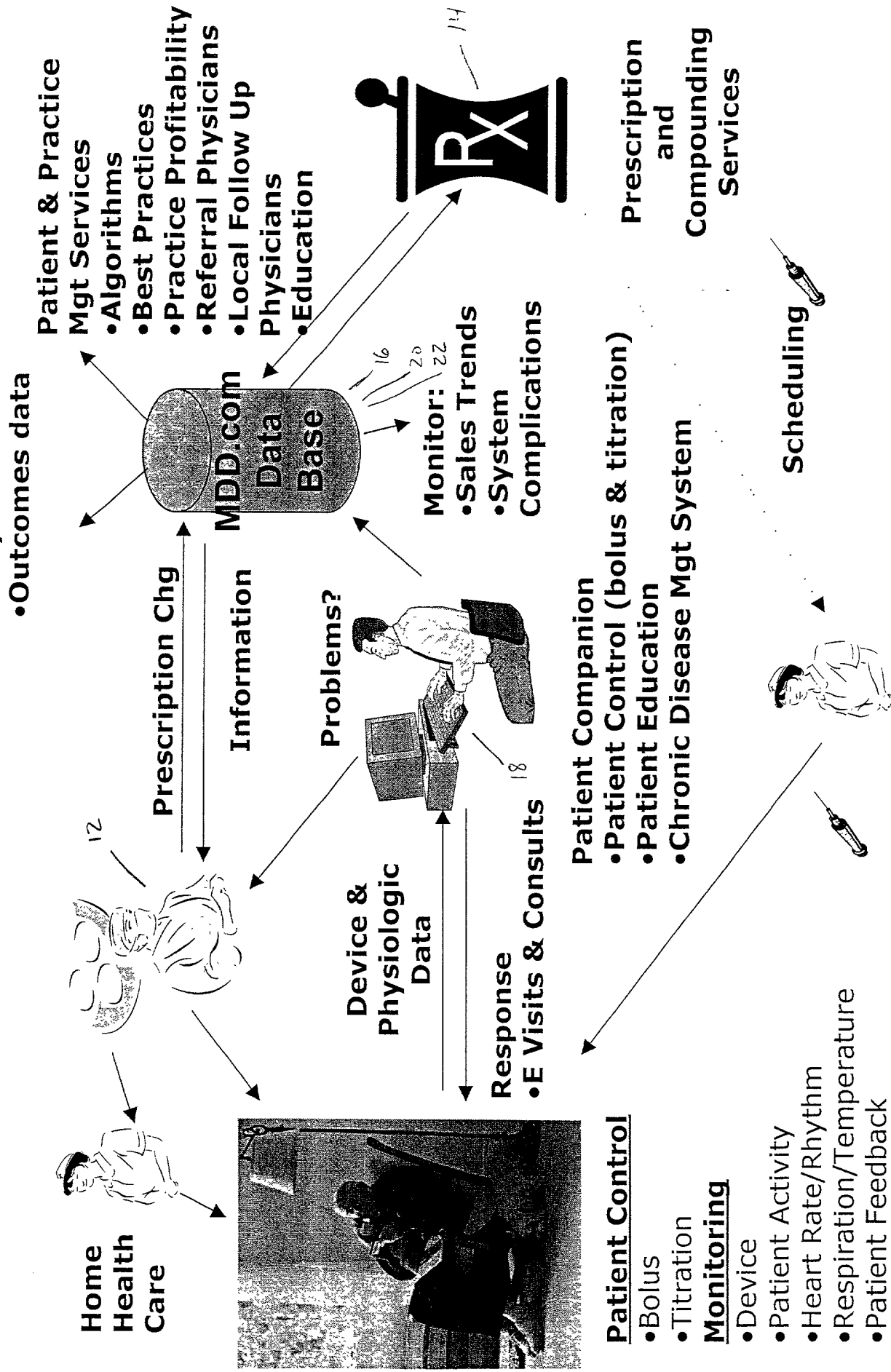


FIG 9

FIG 10

Create or Modify a Digital Dashboard
 Grey = Business Rules
 Red = Manual Process

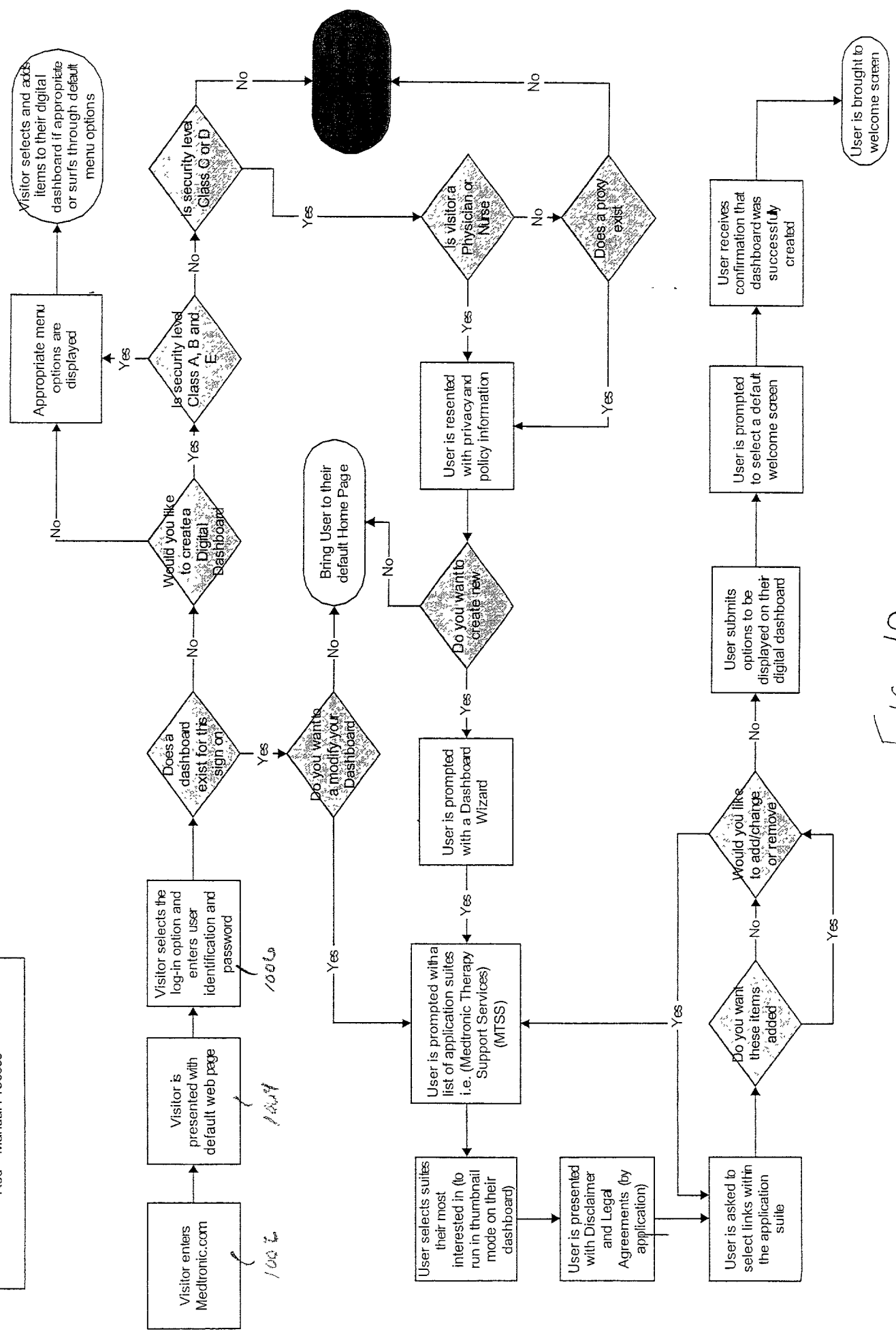


FIG 10

B2B-WebMethods Infrastructure

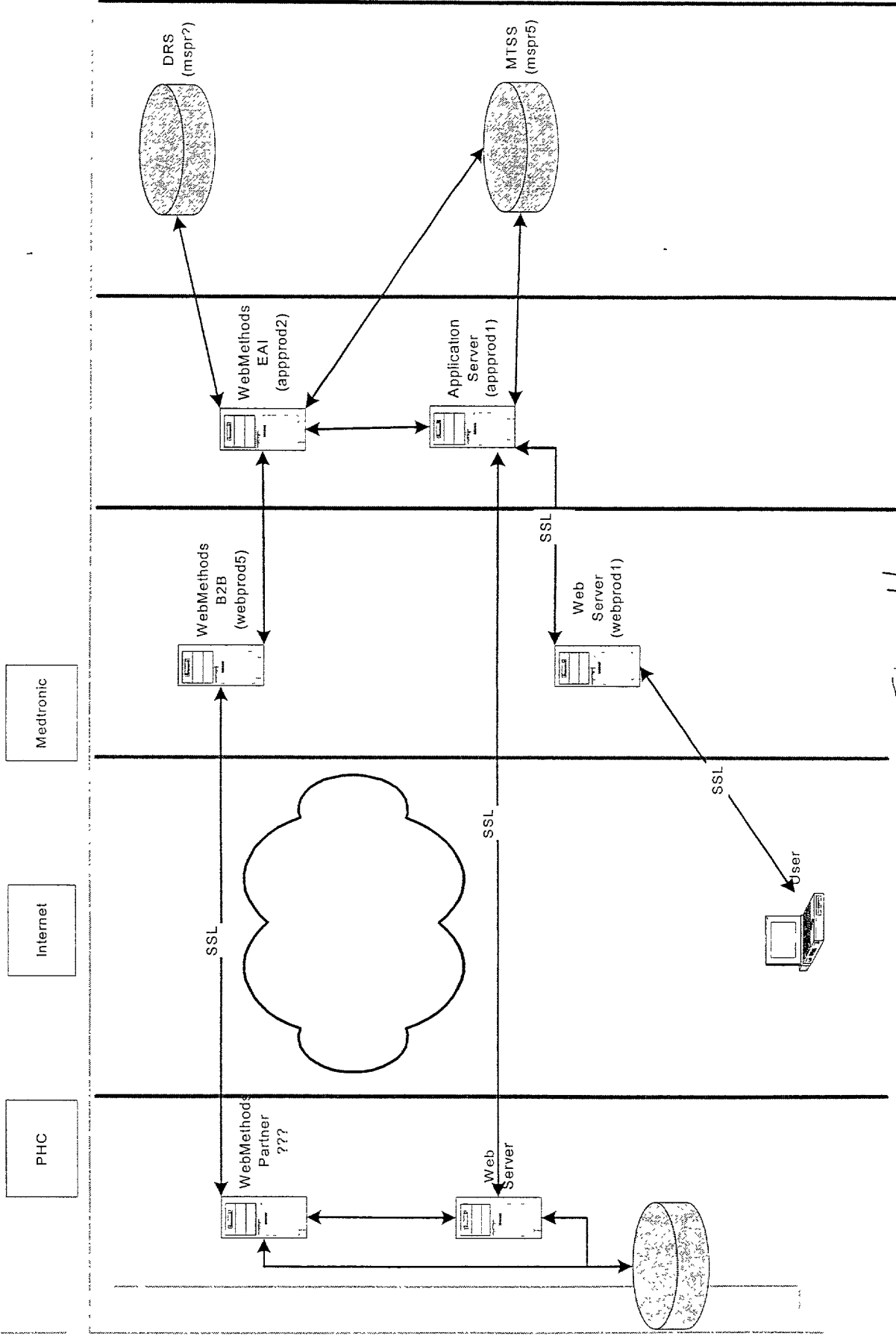


FIG 11

Dashboard Example: TSS



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Guy Scott Bristol (authenticated)
THERAPY SUPPORT SERVICES

Dashboard • Tour • Maintenance • Login • Logout



Medtronic Device Registration System

Patient Refills in the next

Place new prescription
Track status of prescription
Patient prescription history

Disclaimer

Lookup patient in registry
Register a new implant
Update registry information
You have 5 patients in the registry.

Pump Practice Management Support

Gree, D	8626L10	01-Mar-2004
Gree, D	8626L10	01-Mar-2004
Gree, D	8626L10	01-Mar-2004
Gree, D	8626L10	01-Mar-2004
Gree, D	8626L10	01-Mar-2004

Therapy Specific Literature/Materials

Scientific American Medicine
Medical Journals
Clinical Pharmacology
Expert Interviews

Patient Reminder status



Patient Reminders in the next 5 days

- Place new prescription
- Track status of prescription
- Patient prescription history

Read This!

FIG 13

Application Example 1



Guy Bristol (authenticated)
THERAPY SUPPORT SERVICES

•Dashboard •Suite 1 •Suite 2 •Maintenance •Login •Logout



Registered Pump Implants (Mock Up)

Back

Lookup Patient Register Device Update Registry	Patient Name	Model	Implant Date	Indication	History	Initial Drug	Update
Select	Patient 1	Model 1	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 2	Model 2	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 3	Model 3	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 4	Model 4	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 5	Model 5	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 6	Model 6	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 7	Model 7	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 8	Model 8	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 9	Model 9	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 10	Model 10	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 11	Model 11	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 12	Model 12	12-Jan-2000	Indication	History	Generic	Update

Application Example 2 (B2B)



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Guy Bristol (authenticated)
THERAPY SUPPORT SERVICES

•Dashboard •Suite 1 •Suite 2 •Maintenance •Login •Logout



PRIORITY
HEALTHCARE CORPORATION

Patient Information

Patient Info		Patient Phone	Patent Primary Ins	Preferences	Consulation	Allergias	Disease	Shipping	Notes	Picture
Last Name :				First Name :						
Middle Name :				Title :						
Address 1 :										
Address 2 :										
City :				State :						
Zip :				Country :						
Patient Status :		Active : <input checked="" type="radio"/> Deceased : <input type="radio"/>		Birthdate :						
Social Security No :				Misc. ID :						
Height :				Weight :						
Last Modified On :				Modified By :						
Date Entered :				Entered By :						
<div> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </div>										

15/16

Relationships

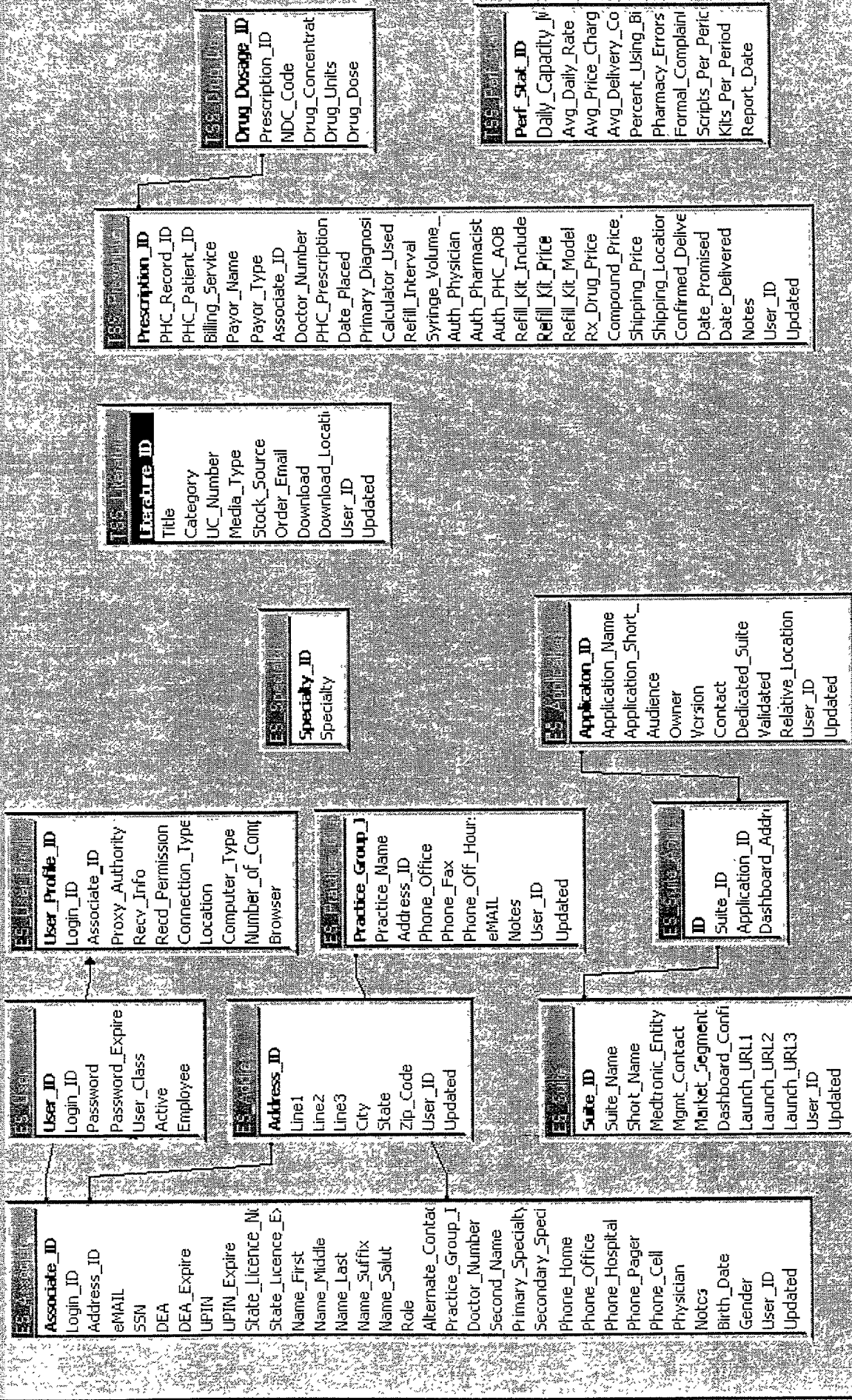


Figure 16.